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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name	:	ZEP STREAK-FREE GLASS CLEANER_1GL_4CT
Material number	:	ZU1120128
Manufacturer or supplier's	deta	ails
Company	:	Zep Inc.
Address	:	350 Joe Frank Harris Parkway, SE Emerson, GA 30137
Telephone	:	Compliance Services - 877-428-9937

Emergency telephone nu	mbe	rs
For SDS Information	:	Compliance Services - 877-428-9937
For a Medical Emergency	:	877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency	:	CHEMTREC: 800-424-9300 - All Calls Recorded. In the District of Columbia 202-483-7616

Recommended use of the chemical and restrictions on use

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	dark, blue
Odour	pleasant

GHS Classification

Flammable liquids	: Category 4
GHS label elements	
Signal word	: Warning
Hazard statements	: H227 Combustible liquid.
Precautionary statements	 Prevention: P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P280 Wear protective gloves/ eye protection/ face protection. Response: P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Storage: P403 + P235 Store in a well-ventilated place. Keep cool. Disposal: P501 Dispose of contents/container in accordance with local regulation.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration [%]
2-butoxyethanol	111-76-2	>= 1 - < 3

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice	:	Do not leave the victim unattended. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Do not leave the victim unattended.
If inhaled	:	If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	:	If skin irritation persists, call a physician. Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.
In case of eye contact	:	Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist. Keep eye wide open while rinsing. Rinse immediately with plenty of water for at least 15 minutes.
If swallowed	:	Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	:	Effects may be delayed, symptoms may include minor eye or skin irritation. Overexposure may cause mild eye or skin irritation.
Notes to physician	:	Treat symptomatically. Symptoms may be delayed.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2)

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	Water spray jet Alcohol-resistant foam Dry chemical	
Unsuitable extinguishing media	: High volume water jet	
Specific hazards during firefighting	: Do not allow run-off from fire fightin courses.	ng to enter drains or water
Hazardous combustion products	: Carbon dioxide (CO2) Carbon monoxide Smoke	
Specific extinguishing methods	: Use extinguishing measures that a circumstances and the surrounding	
Further information	: For safety reasons in case of fire, of separately in closed containments. Use a water spray to cool fully closed cool	
Special protective equipment for firefighters	: Wear self-contained breathing app necessary.	aratus for firefighting if

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	 Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. Avoid exposure - obtain special instructions before use. Take precautionary measures against static discharges.
Conditions for safe storage	 No smoking. Keep in a well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with

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the technological safety standards.

Materials to avoid : Oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-butoxyethanol	111-76-2	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m3	NIOSH REL
		TWA	50 ppm 240 mg/m3	OSHA Z-1
		TWA	25 ppm 120 mg/m3	OSHA P0
		PEL	20 ppm 97 mg/m3	CAL PEL

Biological occupational exposure limits

Component	CAS-No.	Control	Biological	Sampling	Permissible	Basis
		parameters	specimen	time	concentration	
2-BUTOXYE THA NOL	111-76-2	Butoxyacetic acid (BAA)	Urine	End of shift (As soon as possible after exposure ceases)	200.mg/g Creatinine	ACGIH BEI

Engineering measures	:	effective ventilation in all processing areas
Personal protective equipment	nt	
Respiratory protection	:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Hand protection Material Remarks		Protective gloves The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Safety glasses
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: dark, blue
Odour	: pleasant
Odour Threshold	: No data available
рН	: 10.5 - 11.5
Melting point/freezing point	: No data available
Boiling point	: 96.1 °C
Flash point	: 76.7 °C Method: closed cup
Evaporation rate	: 1
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Density	: 0.998 g/cm3
Solubility(ies)	
Water solubility	: soluble in cold water, soluble in hot water
Partition coefficient: n- octanol/water	: No data available
Auto-ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity	
Viscosity, kinematic	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Vapours may form explosive mixture with air. No decomposition if stored and applied as directed.

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Conditions to avoid	: Heat, flames and sparks. Extremes of temperature and direct	ct sunlight.
Incompatible materials	: Oxidizing agents	
Hazardous decomposition products	: Carbon oxides	

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Aggravated Medical Condition Symptoms of Overexposure	 None known. Effects may be delayed, symptoms may include minor eye or skin irritation. Overexposure may cause mild eye or skin irritation. Treat symptomatically. Symptoms may be delayed.
Carcinogenicity:	
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	Confirmed animal carcinogen with unknown relevance to humans 2-butoxyethanol 111-76-2
OSHA	ethanol 64-17-5 No component of this product present at levels greater than or actual to 0.1% is an OSHA's list of regulated astronogene
NTP	equal to 0.1% is on OSHA's list of regulated carcinogens. No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Acute toxicity	
Product:	
Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate : > 200 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Components:	
2-butoxyethanol: Acute oral toxicity	: LD50 Oral Rat: 880 mg/kg

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Acute dermal toxicity : LD50 Dermal Rabbit: 1,060 mg/kg

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Contact with eyes may cause irritation.

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

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Densistance and dense debility		
Persistence and degradability		
No data available Bioaccumulative potential		
Product:		
Partition coefficient: n- octanol/water	: Remarks: No data available	
Mobility in soil		
No data available		
Other adverse effects		
No data available <u>Product:</u>		
Regulation	40 CFR Protection of Environment; Stratospheric Ozone - CAA Sectior Substances	
Remarks	This product neither contains, nor with a Class I or Class II ODS as d Clean Air Act Section 602 (40 CFR + B).	efined by the U.S.
Additional ecological information	: No data available	

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 Dispose of in accordance with local regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.
Contaminated packaging	 Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

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Transportation Regulation: IATA (Cargo Air): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IATA (Passenger Air): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: TDG (Canada): NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list

: No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
ammonia, aqueous solution	1336-21-6	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Flammable (gases, aerosols, liquids,	or solids)	
SARA 302	:	No chemicals in this material are sub requirements of SARA Title III, Secti	• •	ing
SARA 313	:	The following components are subjected by SARA Title III, Section 2-butoxyethanol		vels 1.8024 %
California Prop. 65				
		This product does not contain any California to cause cancer, birth de reproductive harm.		

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The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
DSL	All components of this product are on the Canadian DSL

For information on the country notification status for other regions please contact the manufacturer's regulatory group.

Inventory Acronym and Validity Area Legend:

TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

Further information

NFPA:

HEALTH	1
FLAMMABILITY	2
INSTABILITY	0
SPECIAL HAZARD.	

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

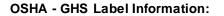
4 = Extreme

HMIS III:

HEALTH	1
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High 4 = Extreme, * = Chronic



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Signal w ord Hazard statements	: Warning: : Combustible liquid.	
Precautionary statements	: Prevention: Keep aw ay from heat/sparks/open flame protective gloves/ eye protection/ face protection.	s/hotsurfaces. No smoking. Wear
	Response: In case of fire: Use dry sand, dry chemica extinguish.	l or alcohol-resistant foamto
	Storage: Store in a w ell-ventilated place. Keep cool. Disposal: Dispose of contents/container in accordance	ce with local regulation

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